

SQUARE SPIRALS

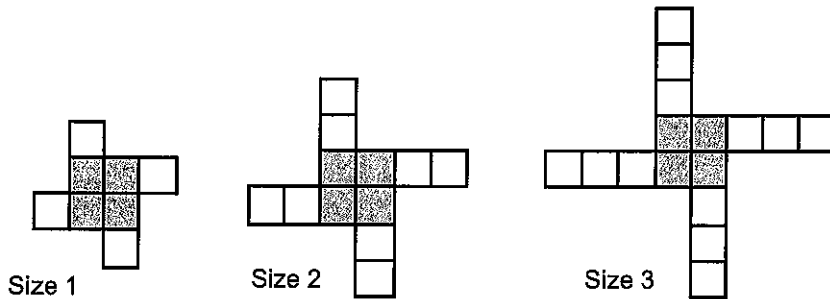
This problem gives you the chance to:

- Find number patterns
- Use number patterns to solve a problem

Maria designs logos. Here is her Square Spiral design.

The design is made with gray and white squares.

She makes this design in many different sizes.



1. Draw Size 4 next to Size 3.

How many gray and white squares are there in Size 4? _____

2. How many gray and white squares does Maria use to make Size 6?

Explain how you figured it out.

3. Write down a rule or formula for finding the **total** number of squares needed to make a Square Spiral when you know its Size number. Let T = total number of gray and white tiles, and S = Size number. Explain clearly.

4. Maria has 84 squares altogether.

What is the largest size spiral she can make? Show how you figured it out.

[10]